ROZANOV, N. P.

DZHUNKOVSKIY, N.N., professor, doktor tekhnicheskikh nauk; BLIZNYAK, Ye.V., professor; GUBIN, F.F., professor; ABRAMOV, N.N. professor ROZANOV, N.P., VORONOV, P.A., BORODIN, P.V., POSLEDOV, M.A. YUREVICH, D.P., PERSON, M.N., tekhnicheskiy redaktor.

[Introduction to hydraulic engineering] Vvedenie v gidrotekhniku. Moskva, Gos.izd-vo lit-ry po stroit. i arkhit. 1955. 301 p.
(Hydraulic engineering) (MLRA 8;8)

ROZANOV, N.P., inzhener.

Factory for producing large concrete panels for house construction in France. Stroi.i dor.mashinostr. 2 no.3:36-40 Mr '57. (MLRA 10:5)

(France--Reinforced concrete construction)

(Concrete slabs)

ROZANOV, N.P., dotsent, kand.tekhn.nauk; BORSHCHEVSKAYA, N.M., red.izd-va;
SOLNTSEVA, L.M., tekhn.red.

[Vacuum spillway dams with lateral contraction] Vakuumnye vodoslivnye plotiny s bokovym szhatiem. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1958. 130 p.
(MIRA 12:9)

(Spillways)

ROZANOV, N.P., dots., kand.tekhn.nauk

Using the fragmentation method in calculating discharge capacity of spillways with marginal pressure. Nauch.dokl.vys.shkoly; stroi. no.1: 194-201 (MIRA 12:1)

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(Spillways)

ROZANOV, N. P.,

"New Equipment and Production Technology of Reinforced Concrete Parts and Design for Large-Panel Building Construction,"

report presented at the 3rd All-Union Conference of Builders, Moscow, 10-12 April 1958.

Stroitel'noye i dorozhnoye mashinostroyeniye, no. 6, 1958.

ROZANOV, Nikolay Pavlovich, dotsent, kand.tekhn.nauk; AGROSKIN, I.I., doktor tekhn.nauk, prof., retsenzent; AKHUTIN, A.N., doktor tekhn.nauk, prof., retsenzent; VAKHRAMEYEV, A.K., red.; MATVEYEV, G.I., tekhn.red.

[Problems in designing hydraulic conduits operating under vacuum or in swiftly flowing current] Voprosy proektirovaniia vodopropusknykh sooruzhenii, rabotaiushchikh v usloviiakh vakuma i pri bol'shikh skorostiakh potoka. Moskva, Gos.energ.izd-vo, 1959. 206 p. (MIRA 12:6)

(Hydraulic engineering)

SUSNIKOV, Aleksandr Alekseyevich; KALACHEV, Valeriy Aleksandrovich;
LAPIN, Flaviy Al'bertovich; ROZANOV, Nikolay Petrovich;
FOLOMEYEV, Aleksandr Alekseyevich; SHAGINOV, D.L., dotsent,
retsenzent; KOLDOMASOV, Ye.I., red.; DANILOV, L.N., red. izd-va;
MODEL', B.I., tekhn.red.

[Equipment for plants manufacturing reinforced-concrete products]
Oborudovanie zavodov zhelezobetonnykh izdelii. Moskva, Gos.
nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 209 p.
(Precast concrete) (MIRA 13:12)

ROZANOV, N.P., inzh.

Equipment for large-panel housing construction used in France.
Stroi. i dor. mashnostr. 5 no.6:39-3 of cover Je '60.
(MIRA 13:7)
(France--Precast concrete construction)

ROZANOV, N.P., doktor tekhn.nauk

Some basic relations for determining the capacity of nonsubmerged hollow (tunnel) water conduits. Sbor.trud.MISI no.32:66-81 '61.
(MIRA 14:7)

(Hydraulic structures)

KLUGMAN, M.A., inzh., red.; ROZANOV, N.P., inzh., red.; KLIMOVA, G.D., red. izd-va; GARNUKHIN, Ye.K., tekhn. red.; KUZ'MINA, G.I., tekhn. red.

[Instructions for organizing the assembled delivery and transportation of articles and construction of series 1-464 and 1-464 A large-panel apartment houses made of molded panels] Ukazaniia po organizatsii komplektnoi postavki, transportirovke izdelii i vozvedeniiu krupnopanel'nykh zhilykh domov serii 1-464 i 1-464 A iz panelei, izgotovliaemykh kassetnym metodom; tekhnicheskie usloviia. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 130 p. (MIRA 14:6)

1. Vsesoyuznyy gosudarstvennyy proyektno-konstruktorskiy institut Giprostroyindustriya.
(Apartment houses) (Precast concrete construction)

MOYS, P.P., inzh.; PASHKOV, N.N., inzh.; ROZANOV, N.P., dotsent, doktor tekhn.nauk; TUZHILKIN, A.M., kand.tekhn.nauk

Laboratory hydraulic studies of variants of a side-channel for the Charvak hydroelectric development. Sbor.trud.MISI no.32:81-97 '61. (MIRA 14:7)

(Charvak—Spillways)

VAYNBERG, G.D., inzh.; KRICHEVSKAYA, Ye.I., kand. tekhn. nauk; MAZALOV, A.N., inzh.; ROZENFEL'D, A.G., inzh.; FOLOMIN, A.I., doktor tekhn. nauk; TESLER, P.A., kand. tekhn. nauk; SHOLOKHOV, V.G., arkhit.; RUBANENKO, B.R., glav. red.; ROZANOV, N.P., zam. glav. red.; ONUFRIYEV, I.A., red.; YUDIN, Ye.Ya., red.; NASONOV, V.N., red.; ISIDOROV, V.V., red.; MAKARICHEV, V.V., red.; POLUBNEVA, V.I., inzh., red.

[Improving the durability of industrial built-up roofs] Voprosy povysheniia dolgovechnosti industrial'nykh sovmeshchennykh krysh. Moskva, Gosstroiizdat, 1962. 43 p. (MIRA 17:4)

1. Akademiya stroitel'stva i arkhitektury SSSR. Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu. 2. TSentral'nyy nauchno-issledovatel'skiy i proyektno-eksperimental'nyy institut industrial'nykh, zhilykh i massovykh kul'turno-bytovykh zdaniy Akademii stroitel'stva i arkhitektury SSSR (for Vaynberg, Krichevskaya, Mazalov, Rozenfel'd, Folomin). 3. Nauchno-issledovatel'skiy institut stroitel'noy fiziki Akademii stroitel'stva i arkhitektury SSSR (for Sholokhov). 4. Nauchno-issledovatel'skiy institut betona i zhelezobetona Akademii stroitel'stva i arkhitektury SSSR, Perovo (for Tesler).

ROZANOV, Nikolay Petrovich; POPOV, V.F., doktor tekhn. nauk, prof., retsenzent; KERSTEN, M.N., nauchnyy red.; SMIRNOV, Yu.I., red.; TSAL, R.K., tekhn. red.

[Technology of manufacturing small propellers] Tekhnologiia izgotovleniia grebnykh vintov malykh razmerov. Leningrad, Sudpromgiz, 1962. 167 p. (MIRA 15:6)

(Propellers) (Marine engineering)

MONFRED, Yu.B., kand. tekhn. nauk, red.; RUBANENKO, B.R., glav. red.; [redacted]., zam. glav. red.; ONUFRIYEV, I.A., red.; YUDIN, Ye.Ya., red.; NASONOV, V.N., red.; ISIDOROV, V.V., red.; MAKARICHEV, V.V., red.; POLUBNEVA, V.I., inzh. red.

[Improving the technology of building large-panel apartment houses] Sovershenstvovanie tekhnologii krupnopanel'nogo domostroeniia. Moskva, TSentr. biuro tekhn. informatsii in-ta organizatsii, mekhanizatsii i tekhn. pomoshchi stroit., 1962. 51 p. (MIRA 16:8)

(Apartment houses)

MOROZOV, N.V., kand. tekhn. nauk; MKRTUMYAN, A.K., kand. tekhn. nauk; ANTIPOV, T.P., arkh.; KOCHESHKOV, V.G., inzh.; LISAGOR, I.A., inzh.; TSAPLEV, N.N., inzh.; IVASHKOVA, V.K., kand.tekhn. nauk; SHIKUNOV, I.Ya., inzh.; FILIN, Yu.D., inzh.; MOSTAKOV, V.I.; BURLACHENKO, P.Ye., kand. khim. nauk[deceased]; PANKRATOV, V.F., inzh.; RUBANENKO, B.R., glav. red.; ROZANOV, N.P., zam. glav. red.; ONUFRIYEV, I.A., red.; YUDIN, Ye.Ya., red.; NASONOV, V.N., red.; ISIDOROV, V.V., red.; MAKARICHEV, V.V., red.; POLUBNEVA, V.I., red.

[Ways of improving design details for the seams of exterior wall slabs] Puti uluchsheniia konstruktivnykh reshenii stykov panelei naruzhnykh sten. Moskva, TSentr. biuro tekhn. informatsii i nauchno-issl. in-ta organizatsii, mekhanizatsii i tekhn. pomoshchi stroit., 1962. 78 p. (MIRA 16:8)

1. TSentral'nyy nauchno-issledovatel'skiy i proyektno-eksperimental'nyy institut industrial'nykh zhilykh i massovykh kul'turno-bytovykh zdaniy (for TSaplev). 2. Nauchno-issledovatel'skiy institut betona i zhelezobetona Akademii stroitel'stva i arkhitektury SSSR, Perovo (for Mostakov). 3. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'nykh materialov Akademii stroitel'stva i arkhitektury SSSR (for Pankratov).

(Walls)

NIKOL'SKIY, V.N., kand. tekhn. nauk; SPIVAK, N.Ya., kand. tekhn. nauk; BAULIN, D.K., inzh.; BUADZE, V.Sh., inzh.; KREYTAN, V.G., kand. tekhn. nauk; PERMYAKOV, S.I., kand. tekhn. nauk; USOV, A.L., inzh.; KOSHKIN, V.G., kand. tekhn. nauk; MARAVIN, B.L., inzh.; ERENBURG, A.I., inzh.; KOCHESHKOV, V.G., inzh.; RUBANENKO, B.R., glav. red.; ROZANOV, N.P., zam. glav. red.; ONUFRIYEV, I.A., red.; YUDIN, Ye.Ya., red.; NASONOV, V.N., red.; ISIDOROV, V.V., red.; MAKARICHEV, V.V., red.; FINKINSHTEYN, B.A., inzh. red.;

[Prefabricated floor and ceiling structures] Poly i perekrytiia industrial'noi konstruktsii. Moskva, Gosstroiizdat, 1963. 71 p. (MIRA 16:12).

1. Akademiya stroitel'stva i arkhitektury SSSR. TSentral'nyy nauchno-issledovatel'skiy i eksperimental'no-proyektnyy institut industrial'nykh zhilykh i massovykh kul'turno-bogatykh zdaniy. 2. Nauchno-issledovatel'skiy institut stroitel'noy fiziki i ograzhdayushchikh konstruktsii (for Nikol'skiy, Usov). 3. TSentral'nyy nauchno-issledovatel'skiy i eksperimental'no-proyektnyy institut industrial'nykh zhilykh i massovykh kul'turno-bogatykh zdaniy (for Buadze, Baulin, Spivak, Kreytan, Kocheshkov). 4. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'nykh materialov Akademii stroitel'stva i arkhitektury SSSR (for Erenburg).

(Floors) (Ceilings)

L 14854-66 EWP(j)/EWT(m) RM

ACC NR: AP6001728 (A) SOURCE CODE: UR/0020/65/165/004/0813/0816

AUTHORS: Shal'nev, K. K.; Rozanov, N. P.; Pshenitsyn, P. A.; Inozemtsev, Yu. P.; Sakharov, V. I.

62
B

ORG: none

TITLE: Mechanism of cavitation erosion of cement 15 and polymer concretes

SOURCE: AN SSSR. Doklady, v. 165, no. 4, 1965, 813-816

TOPIC TAGS: cavitation, reinforced concrete, erosion, polymer, plastic strength

ABSTRACT: The authors investigated the effect of various factors, besides strength, on the resistance to cavitational erosion of cement and polymer concrete (plastic-reinforced concrete) 15,44 These factors were homogeneity of the concrete structure, composition and structure of the filler rock, cohesion of the binding agent and its adhesion to the filler. The tests were made in a hydrodynamic tube with area

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2

L 14854-66

ACC NR: AP6001728

0

24 x 100 mm, at a stream velocity ahead of the sample 20 m/sec, the cavitation being measured on the rear end of the sample. Gravel concrete had the least resistance to cavitation, and stone concrete the highest, indicating that a large mesh of the filler is harmful from the point of view of cavitation erosion. In the case of plastic-based concrete the resistance to erosion was higher by tens and hundreds of times. No connection was established between the strength of the concrete and its resistance to cavitation erosion, in contradiction to earlier reports. It is concluded that the cavitation erosion damage of concrete has many similar features to damage to metals, so that the requirements should be identical for all types of materials. This report was presented by Academician P. Y. Kochina. Orig. art. has: 2 figures and 3 tables.

SUB CODE: 11 SUBM DATE: 25Mar65/ ORIG REF: 007/ OTH REF: 003

Card 2/2

ACC NR: AT7[illegible] (A) SOURCE CODE: UR/0000/66/000/000/0433/0444

AUTHORS: Novikova, O. V.; Rozanov, N. S.

ORG: none

TITLE: A study of the stressed state of hydrotechnical pressure tunnels

SOURCE: Vsesoyuznaya konferentsiya po polyarizatsionno-opticheskomu metodu issledovaniya napryazheniy. 5th, Leningrad, 1964. Polyarizatsionno-opticheskiy metod issledovaniya napryazheniy (Polarizing-optical method of investigating stresses); trudy konferentsii. Leningrad, Izd-vo Leningr. univ., 1966, 433-444

TOPIC TAGS: hydraulics, material strength, dam, stress analysis, concrete

ABSTRACT: The results of an experimental study of the stressed state of the jacketing in underwater tunnels of the Aswan Dam (United Arab Republic) are presented. The studies were conducted with the use of the polarization-optical method. The tunnels have different outlines at various sections, and are strengthened by concrete jacketing 1--4 m thick. In certain instances the surrounding mass of the dam is cement-strengthened to a depth of 7 m. The stiffness of the materials at various sections is characterized by their deformation modulus E, taken to be equal to $2.0 \cdot 10^5$--$2.4 \cdot 10^5$ kg/cm^2 for concrete jacketing, and $0.25 \cdot 10^5$--$1.5 \cdot 10^5$ kg/cm^2 for respective parts of the dam. During use, the tunnels undergo hydrostatic supply water pressure heads up to 100 m. Such pressure may also occur in the clearances between the jacketing and

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ACC NR: AT7002121

the rock. The experimental study was conducted on models of the tunnel and rock structure, made from epoxide resin ED6. Long parts of the tunnel were studied by planar sections of the model, and the inlet section was investigated as a three-dimensional model. The presentation of results includes diagrams of the stress patterns in several tunnel sections and in the interface between the tunnel wall and surrounding dam material. Orig. art. has: 10 figures, 1 table, and 1 equation. (W. A. 101)

SUB CODE: 13/ SUBM DATE: 14Jun66/ ORIG REF: 002

Card 2/2

L 37196-66 EWT(d)/EWT(m)/EWP(f)/T-2
ACC NR: AT6019148 (N) SOURCE CODE: UR/2807/65/000/224/0057/0065

AUTHOR: Rozanov, N. S.; Saul', T. K.

ORG: None

TITLE: Measuring temperatures in trawler diesel engine pistons

SOURCE: Tallinn. Politekhnicheskiy institut. Trudy, Seriya A, no. 224, 1965. Sudovyye silovyye ustanovki (Marine power installations) sbornik statey, no. 3, 57-65

TOPIC TAGS: temperature measurement, engine piston, diesel engine, thermocouple, heat of combustion, engine test stand

ABSTRACT: A method is proposed for measuring temperatures in trawler diesel engine pistons. Two types of temperature measurement must be considered in studying the thermal stresses of a piston: 1. determining the temperature on the outer surface of the piston head for studying the heat exchange between the gases and the head, and 2. determining the temperature at some depth from the surface in contact with the gases, where temperature variation is relatively low. Two methods are proposed for carrying out the second type of measurement: "fuses" and thermocouples. Simpler methods are discussed such as measuring the temperature of a piston with respect to its cooling curve and others. The "fuse" method is based on using pure metals and alloys whose melting points are known. By using these "fuses", maximum piston temperature can be

UDC: 621. 431. 74:62. 242:536. 50

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L 37196-66

ACC NR: AT6019148

determined to an accuracy of 10-50°C in a temperature range of 120-950°C. The principal disadvantages of this method are the requirements for opening the engine and narrowing the fusion temperature range, while the main advantage is the absence of mechanical and electrical connections for registering temperature. The main advantage of the thermocouple method is the ability to take measurements at various points under varying operating conditions. The thermocouple method was employed for measuring the temperature of the piston head and the "fuse" method was used to verify the results. Since both continuous and periodic connections with registering equipment can be used in the case of the thermocouple method, the periodic connection was selected. A figure is given showing the temperature measuring equipment. The results show that the thermocouple method, as tested on the 8HFD24 diesel engine, is fully reliable and accurate. The engine functioned for 250 hours together with the thermocouple measuring apparatus on a test stand under varying conditions. No measurement errors were observed during this time. The thermocouple temperature measuring equipment can be recommended as reliable for use over long periods of testing. This method has also been used for taking piston temperature measurements on other engines. Orig. art. has: 6 figures.

SUB CODE: 10/ 13/ SUBM DATE: none/ ORIG REF: 001/ OTH REF: 001

Card 2/2

ROZANOV, N.S., starshiy nauchnyy sotrudnik, kandidat tekhnicheskikh nauk.

Experimental method using tensometric grids and their application in solving problems in structural statics. Izv. VNIIG 57:91-111 '57. (MIRA 10:8)

(Structures, Theory of)
(Strains and stresses)

Rozanov N.S.

PHASE I BOOK EXPLOITATION SOV/4042

Leningrad. Universitet

Polyarizatsionno-opticheskiy metod issledovaniya napryazheniy; trudy konferentsii 13-21 fevralya 1958 goda (Optical Polarization Method for Stress Analysis; Transactions of the Conference of February 13-21, 1958). [Leningrad] Izd-vo Leningradskogo univ., 1960. 451 p. Errata slip inserted. 2,400 copies printed.

Resp. Ed.: S.P. Shikhobalov; Ed.: Ye.V. Shchemeleva; Tech. Ed.: S.D. Vodolagina; Editorial Board: S.G. Outman, L.M. Kachanov, V.M. Krasnov, T.D. Maksutova, N.I. Prigorovskiy, V.M. Proshko, N.S. Rozanov, and Ye.I. Edel'shteyn.

PURPOSE: This collection of 58 articles is intended for scientists and engineers concerned with experimental stress analysis of machine parts and structural components.

COVERAGE: The collection contains reports presented at the conference on optical polarization methods in stress analysis held February 13 - 21, 1958, in Leningrad and attended by 324 delegates including representatives of the People's Republic of China, the Polish People's Republic, the German Democratic Republic, and the Republic of Czechoslovakia. The reports discuss general theoretical problems and new methods of investigation and describe apparatus and materials used in the optical method. Solutions of specific two-dimensional and three-dimensional problems occurring in shipbuilding, aircraft design, engine construction, in various branches of heavy and precision machine design, in mining, metallurgy, hydraulic structures, railroad transport, in structural mechanics, geodynamics, in the control of stresses in products of the glass and electronic industry, etc., are given. Solution of the three-dimensional problem by means of the method of photoelasticity is introduced and the use of this method for the solution of problems associated with plasticity, creep, dynamics, hydrodynamics, etc., is demonstrated. Reports previously published elsewhere are printed here in abbreviated form. No personalities are mentioned. References are found at the end of 47 of the reports.

Optical Polarization Method (Cont.) SOV/4042

10. Bokshteyn, M.F. Development of the Method of Stress Analysis for Transparent Models in Diffused Light 94

11. Bokshteyn, M.F. Geometrical Analysis of the Behavior of Polarized Light During Passage Through a Three-Dimensional Stressed Model 102

12. Zuyev, B.M. On the Solution of the Three-Dimensional Problem in the Theory of Elasticity by the Optical Method 107

13. Rozanov, N.S. Determination of Mean Stresses in Massive Structures With Models of Variable Thickness (Reduced Two-Dimensional Problem) 114

14. Proshko, V.M. Solution of Three-Dimensional Problems by the Optical Method With Use of Composite Models 123

15. Outman, S.G. Residual Stresses Due to the Building-Up of a Structure Under Load 131

16. Schwieger, K. (German Democratic Republic). Use of Equidensitometry in the Optical Polarization Method 142

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PHASE I BOOK EXPLOITATION SOV/4042

Leningrad. Universitet

Polyarizatsionno-opticheskiy metod issledovaniya napryazheniy; trudy konferentsii 13-21 fevralya 1958 goda (Optical Polarization Method for Stress Analysis; Transactions of the Conference of February 13-21, 1958). [Leningrad] Izd-vo Leningradskogo univ., 1960. 451 p. Errata slip inserted. 2,400 copies printed.

Resp. Ed.: S.P. Shikhobalov; Ed.: Ye.V. Shchemeleva; Tech. Ed.: S.D. Vodolagina; Editorial Board: S.G. Gutman, L.M. Kachanov, V.M. Krasnov, T.D. Maksutova, N.I. Prigorovskiy, V.M. Proshko, N.S. Rozanov, and Ye.I. Edel'shteyn.

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problems and new methods of investigation and describe apparatus and materials used in the optical method. Solutions of specific two-dimensional and three-dimensional problems occurring in shipbuilding, aircraft design, engine construction, in various branches of heavy and precision machine design, in mining, metallurgy, hydraulic structures, railroad transport, in structural mechanics, geodynamics, in the control of stresses in products of the glass and electronic industry, etc., are given. Solution of the three-dimensional problem by means of the method of photoelasticity is introduced and the use of this method for the solution of problems associated with plasticity, creep, dynamics, hydrodynamics, etc., is demonstrated. Reports previously published elsewhere are printed here in abbreviated form. No personalities are mentioned. References are found at the end of 47 of the reports.

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ROZANOV, N.S., starshiy nauchnyy sotrudnik; MOKRUSHIN, V.N., inzh.

Investigating of the effect of noncemented joints on the stressed state of the concrete dam of the Bratsk Hydroelectric Power Station. Izv. VNIIG 76:43-54 '64. (MIRA 18:10)

ROZANOV, N.S., starshiy nauchnyy sotrudnik, kand. tekhn. nauk

Organizing model investigations of thermal stresses on cooling blocks. Izv. VNIIG 73:173-191 '63 (MIRA 18:1)

SHIKHOBALOV, S.P., otv.red.; GUTMAN, S.G., red.; KACHANOV, L.M., red.; KRASNOV, V.M., red.; MAKSUTOVA, T.D., red.; PRIGOROVSKIY, N.I., red.; PROSHKO, V.M., red.; ROZANOV, N.S., red.; EDEL'SHTEYN, Ye.I., red.; SHCHEMELEVA, Ye.V., red.; VODOLAGINA, S.D., tekhn.red.

[Polarization optical method for stress analysis; proceedings of the conference of February 13-21, 1958] Poliarizatsionno-opticheskii metod issledovaniia napriazhenii; trudy konferentsii 13-21 fevralia 1958 goda. Leningrad, Izd-vo Leningr.univ., 1960. 450 p.
(MIRA 13:6)

(Strains and stresses) (Optical measurements)

ROZANOV, N. S.

Works of the Central Peat Experimental Station. (Min of Agri, RSFSR)

Volume 10, 1940, 136 pages.

"The Agricultural Utilization of Pea~~t~~and Peat Pits," Edited by N. S. Rozanov and Z. V. Logvinova.

SO: Botanicheskiy Zhurnal, Vol XXXV, No 1, pp 100-110,
Jan-Feb 1950, Russian bimo per, Moscow/Leningrad (U-5511
12 Feb 1954)

ROZANOV, N. S.

Works of the Central Peat Experimental Station. (Min of Agri, RSFSR)

Volume 8, 1939, 120 pages. Peat Fertilizers.

Edited by N. S. Rozanov.

SO: Botanicheskiy Zhurnal, Vol XXXV, No 1, pp 100-110,
Jan-Feb 1950, Russian bimo per, Moscow/Leningrad (U-5511,
12 Feb 1954)

ROZANOV, N. S.

Works of the Central Peat Experimental Station, (Min of Agri. RSFSR)

Volume II, 1936, "Peat-Fecal Fertilizer."

[illegible] authors, Rozanov, N. S. and Koponev, I.I.

SO: Botanicheskiy Zhurnal, Vol XXXV, No 1, pp 100-110,
Jan-Feb 1950, Russian bimo per, Moscow/Leningrad (U-5511,
12 Feb 1954)

2049. Rozanov, N.S.

Stereometrichkiy Metod Issledovaniya Napryazheniy V Plitakh. M.L. Gisenergoizdat, 1954. 84 s.s Ill. 20sm. (M-Vo Elektrostantsiy SSSR. Glavenergoproyekt. Vsesoyuz. Nauch.-Issled. In-T Gidpoteklniki IM. B. Ye. Vedeneyeva. Tekhn. Informatsiya). 1.500 EKZ. Bespl.--NA obl. AUT. NE Ukazan. --
(54-56496) 624.044.691.833.0014

Rozanov, N.S.

SOKOLOV, Sergey Aleksandrovich; ROZANOV, N.S., kandidat sel'skokhozyaystvennykh nauk, redaktor; GNIPPA, A.V., redaktor; BALLOD, A.I., tekhnicheskiy redaktor.

[Winning and using peat in agriculture] Dobycha i primenenie torfa v sel'skom khoziaistve. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1956. 213 p. (MIRA 10:6)

(Peat industry)

SOV/124-58-1-1466

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 1, p 179 (USSR)

AUTHOR: Rozanov, N. S.

TITLE: Experimental Strain-gage Grid Method and its Application to the Solution of Problems of Structural Statics (Eksperimental'nyy metod tenzometricheskoy setki i prilozheniye yego k resheniyu zadach statiki sooruzheniy)

PERIODICAL: Izv. Vses. n.-i. in-ta gidrotekhn., 1957, Vol 57, pp 91-111

ABSTRACT: Relative to the grid method, the essence of which consists in the observation of the deformation of a grid laid upon the surface of a model (with subsequent calculation of the stresses in accordance with the methods of the theory of elasticity), the author recommends: 1) That the model be made of a yielding material (molding plastic) which has a linear stress-strain relationship); 2) that all measurements be made with the aid of a microscope. Tests performed on models of hydroelectric power-station aggregates (scale 1:200) are described; the typical error is of the order of 12%.

I. K. Snitko

Card 1/1

USCOMM-DC-61028

ROZANOV, N. S.

Works of the Central Peat Experimental Station. (Min of Agri. RSFSR)

Volume 11, 1941, 120 pages.

"Increasing Potato Yields with and Aid of Peat." by Rozanov, N. S.

SO: Botanicheskiy Zhurnal, Vol XXXV, No 1, pp 100-110,
Jan-Feb 1950. Russian bimo per. Moscow/Leningrad (U-5511,
12 Feb 1954)

ROZANOV, N. S.

Separate Publications, (by personnel of Cen. Peat Exp. Station, Min of Agri, RSFSR)

Organizatsiya Dobyvaniya Torfyanykh Udobreniy v Sovkhozakh i Kolkhozakh (Organizing the Extraction of Peat Fertilizers on Sovkhozes and Kolkhozes). by Rozanov, N. S. and Belokopytov, i. Ye. (1932 - or later)

SO: Botanicheskiy Zhurnal, Vol XXXV, No 1, pp 100-110, Jan-Feb 1950, Russian bimo per, Moscow/Leningrad (U-5511, 12 Feb 1954)

1ST AND 2ND ORDERS

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3RD AND 4TH ORDERS

CO

13

Peat fertilizing. A. A. **Kupryanov** and N. S. **Rozanov.** *Arb. Centr. Torfstat. Moscow* 2, 9-40(1930).—The water-sol. phosphate in composts of sphagnum peat and phosphorite was 20-30 times that of similar composts made with wood sedge, and represented 32% of the total phosphate content of the phosphorite. Fertilizer made with peat litter produced heavier crops and was more rapidly nitrified in soil than that made with straw.

B. C. A.

COMMON ELEMENTS

MATERIALS INDEX

OPEN

E-2

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

CA

Calorimetric analysis of potassium. N. S. Rozanov and V. A. Kazarinova. Kalii (U. S. S. R.) 1933, No. 1, 27-31.—A review of methods for detg. K. The calorimetric method of Lombard was found to be the most practical, being fast and accurate. The procedure is given step by step. Louis Sand

METALLURGICAL LITERATURE CLASSIFICATION

ROZANOV, Nikolay Sergeyevich, kandidat sel'skokhozyaystvennykh nauk; KATSNEL'SON, S.M., redaktor; GUBIN, M.I., tekhnicheskiy redaktor

[Use of peat in agriculture; presented by the presidium of the board of administrators of the R.S.F.S.R. Society for the Dissemination of Political and Scientific Knowledge] Ispol'zovanie torfa v sel'skom khoziaistve; predstavlena prezidiumom proavleniia obshchestva po rasprostraneniiu politicheskikh i nauchnykh znanii RSFSR. Moskva, Izd-vo "Znanie," 1957. 31 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnyy znanii. Ser.5, no.11) (MLRA 10:7)
(Peat)

ROZANOV, Nikolai Sergeevich.

Use of peat in agriculture. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1953. 174p. (Uchebniki i uchebnye posobiia dlia sel'skokhoziaistvennykh tekhnikumov) (55-25029)

S663.R69

1. Peat. 2. Fertilizers and manures.

ROZANOV, N.V.; CHINAYEV, M.G.

Noncontanct transistor displacement relays. Priborostroenie no.12: 9-11 D '57. (MIRA 10:12)

(Electric relays) (Transistors)

ROZANOV, N.V.

119-12-3/16

AUTHORS: Rozanov, N.V., Chinayev, M.G.

TITLE: Theory, Computation, and Constructing (Teoriya, raschet i konstruirovaniye) Contactless Sliding Relays Upon Crystalline Triodes (Beskontaktnoye rele peremeshcheniya na kristallicheskikh triodakh)

PERIODICAL: Priborostroyeniye, 1957, Nr 12, pp. 9-11 (USSR)

ABSTRACT: The transformation of a displacement into an electric change of value can be brought about by a sliding relay with electron generators (see 2 schemes in fig. 1). One scheme is used in the electron regulator ЭРМ-47. Such relays are of high sensitivity and of great stability in operation. Their shortcomings, however, are: high anode-voltage, high consumption of energy, explosiveness, short life of the electronic tubes, etc. In connection with the development of the semiconductor engineering, the possibility of substituting electronic tubes by crystal triodes arose. The latter are characterized by a long life, high, mechanic stability, small size and weight, as well as a low consumption of energy. The generators with crystal triodes can be divided into such with feedback and into such with negative interior resistance; the former, however, can be constructed only on surface- and point triodes, the latter only on point triodes (figs. 2 and 3). Experiments proved that the

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AUTHORS: Ilyukhin, V. S., Pokhil, P. F., Rozanov, O. K., Shvedova, N. S.

TITLE: Measurement of Shock Adiabates of Cast Trotyl, Crystalline Hexogen, and Nitromethane

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 131, Nr 4, pp 793-796 (USSR)

TEXT: The relatively low susceptibility to shock of the substances mentioned in the title makes it possible to determine their Hugoniot curves if no detonation occurs. For this purpose the authors employed the method of detonation. The experimental arrangement is schematically shown in figure 1. By using the conservation laws for mass and momentum in the passage of the substance through the shock wave and by employing the condition of steadiness at the interface between metal and the substance to be investigated it is possible to determine the pressure and volume of shock compression from the measured velocity of the shock wave in the material under consideration, from the velocity of mass in the metal, and from the shock adiabate. In the experiments carried out the authors used 5 mm thick copper plates as intermediate material between the active charge and the substance to be investigated. By measuring the velocity of motion of the free surface of the metal it is possible to determine the velocity of mass behind the front of the shock wave since the velocity of the

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Measurement of Shock Adiabates of Cast Trotyl,
Crystalline Hexogen, and Nitromethane

free surface is equal to double the mass velocity (cf Refs 1-3). The velocity of the shock wave in the substance under consideration and the velocity of motion of the free surface of the metal were determined by electric-contact transmitters the signals of which were produced by a cathode-ray oscilloscope of the type OK-15M (developed by the Institut khimicheskoy fiziki AN SSSR (Institute of Chemical Physics of the AS USSR)). The substances mentioned in the title detonate at pressures of between $\sim 80.10^3$ and 100.10^3 atm. For these experiments the authors used 50 mm long and 20 mm thick samples. With rising pressure P of the shock wave entering the sample to be investigated detonation occurs at different distances l from the interface between metal and the explosive under consideration (cf Table 1). This delay of detonation is also used to extend the pressure range to be measured. The velocities of the shock wave measured in all experiments are contained in table 2. From the results obtained in this manner the authors derived empirical relations between the velocity of the shock wave and mass for all substances investigated. The following data were obtained: for hexogen: $D = (2.87+1.61u)$km/sec (valid in the pressure range of from 67.10^9 to 155.10^9 bars); for trotyl: $D = (2.93 + 1.41\,u)$km/sec (valid in the pressure range of from 60.10^9 to 139.10^9 bars);

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69504

Measurement of Shock Adiabates of Cast Trotyl,
Crystalline Hexogen, and Nitromethane

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for nitromethane: $D = (2.00 + 1.38\ u)$km/sec (valid in the pressure range of from 20.10^9 to 86.10^9 bars). Figure 3 shows the relations between the pressure P behind the front of the shock wave and the relative specific volume V/V_0. The extrapolation of the resulting Hugoniot curves up to the intersection with the Michelson straight carried out on the basis of the last-mentioned relations renders it possible to estimate the pressure at the chemical peak of the detonation wave as well as the ratio between the pressure at the chemical peak and the pressure in the Zhuge plane. Figure 3 shows data obtained by M. Ya. Vasil'yev, D. B. Balashov, and L. N. Mokrousov concerning isothermal static compression of trotyl and hexogen, according to which hexogen is less heated in dynamic compression than trotyl. There are 1 figure, 3 tables, and 6 references, 5 of which are Soviet.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences of the USSR)

PRESENTED: December 9, 1959, by N. N. Semenov, Academician

SUBMITTED: December 9, 1959

Card 3/3

31501

S/020/60/133/006/012/016
B101/B206

11.1360

AUTHORS: Dremin, A. N., Adadurov, G. A., and Rozanov, O.K.

TITLE: Detonation of nitromethane close to the limit

PERIODICAL: Doklady Akademii nauk SSSR, v. 133, no. 6, 1960, 1372 - 1374

TEXT: The measurement of the shock adiabate of nitromethane led to the statement that inhomogeneities occurred on the side of the charge. In order to study this effect, the propagation of the detonation in nitromethane was photorecorded simultaneously at the side- and end face of the charge by means of time-lapse motion camera. The experimental device is shown diagrammatically in Fig. 1. The magnesium platelet 2 of 5 mm thickness was placed on the end face of the active trotyl charge 1 (ρ_0 = 1.43 g/cm^3 diameter 40 mm). On it, the Plexiglass cylinder 3 (wall thickness 2 mm) which contained nitromethane, was pasted. A plane detonation wave propagated through the active charge. By means of mirror 4 the end face of the nitromethane charge was projected into the СФРа (SFRa photorecorder (velocity 2.25 mm/μsec). The discussion of the photographs obtained [Abstracter's note: The photographs Figs. 2 - 4 are not reproducible]

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Detonation of nitromethane...

yielded the following results: 1) Dark sections (inhomogeneities) occur on the detonation front (recorded at the end face). 2) The dark sections increase during the propagation of the detonation in nitromethane. 3) To the increase of the dark sections on the end face corresponds a steady decrease of the shine of the side face, with distinct transitions to glare, which spreads against the direction of detonation and reminds of a retonation wave. 4) The rate of detonation of nitromethane was constant for all experiments and amounted to 6300 m/sec. The following conclusions are drawn from these results: If the detonation of nitromethane occurs close to the limit, the front of the detonation wave does not cover any more the entire cross section of the charge. Zones remain which did not enter into reaction and which only detonate subsequently. Under the effect of the shock wave, the nondetonated nitromethane gets opaque, which leads to the dark inhomogeneities observed. The development of centers of prevented detonation and the mechanism of their subsequent reaction has not been clarified as yet. Studies by Yu. N. Shchelkin (ZhETF, 36, 2(1959)), Yu. N. Denisov and Ya. K. Troshin (Zhurn. prikl. mekhaniki i tekhn. fiziki SO AN SSSR, no. 1 (1960)) are however pointed out, who observed similar inhomogeneities in gas detonations close to the limit, and found that the

Card 2/4

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Detonation of nitromethane...

plane wave front is unstable and the reaction is not initiated over the total cross section of the charge, but in individual centers. A. Ya. Apin and V. K. Bobolev (DAN, 58, no. 2 (1947)) also recorded inhomogeneities of the detonation in powdery explosives. There are 4 figures and 6 references: 5 Soviet-bloc and 1 non-Soviet-bloc. The reference to English-language publication reads as follows: T. E. Holland, M. E. Malin, T. P. Cotter, Nature, 178, no. 4523, 38 (1956).

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences, USSR)

PRESENTED: April 2, 1960 by V. N. Kondrat'yev, Academician

SUBMITTED: April 1, 1960

Card 3/4

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Detonation of nitromethane...

Fig. 1. Diagram of the experimental setup.

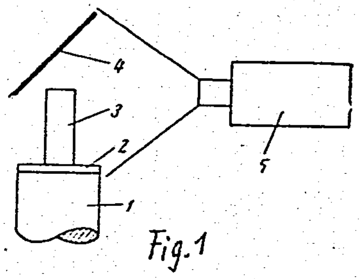

Fig.1

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25484
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AUTHORS: Dremin, A. N. and Rozanov, O. K.

TITLE: Detonation of mixtures of nitromethane with acetone

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 139, no. 1, 1961, 137-138

TEXT: The authors point out that there is no unambiguous experimental confirmation supporting the assumption (K. I. Shchelkin, Ref. 3: ZhETF, 36, No. 2 (1959)) that in the detonation of condensed explosives the reaction does not take place over the whole front of the detonation wave. On the contrary, it occurs in single centers - the points of collision of oblique compression shocks - which are dislocated along the impact front of the detonation wave. These data refute Ya. B. Zel'dovich's hydrodynamic detonation theory (Ref. 1: ZhTF, 10, 542 (1940)) which refers to a smooth front. The authors investigated the detonation of nitromethane (NM) and its mixtures with acetone (A) according to a method described before (A. N. Dremin et al. Ref. 9: DAN, 133, No. 6 (1960). It is based on photographic development (on СФР(SFR) [Abstracter's note: appliance not stated] of the detonation process into the front surface of the charge. The transparency

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Detonation of mixtures of ... S/020/61/139/001/016/018
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of NM and A makes it possible to observe the whole process of propagation of the detonation. The photographic development of this process shows a nonuniform luminosity of the anterior front of the detonation. The pictures show a system of intersecting bright and dark bands following a strictly kept inclination course for the relative mixture. This inclination determines the velocities of propagation of the heterogeneities at the front of the detonation wave. From this the authors conclude that the reaction does not start and follow a synchronous course over the whole front, but in single centers. The bright lines on the pictures correspond to the spots of intense chemical reaction, whilst the dark ones show the absence of a reaction. The authors come to the conclusion that there are spots with most favorable conditions for the course of the reaction. These are the collision points of the oblique impact waves in the front of the detonation wave. With the increase of the percentage content of A in the mixture the number of heterogeneities is decreased at the diameter of the charge. In this case they are so small that they cannot be distinguished by the naked eye. From this the authors conclude that these can also be found in pure NM, only they cannot be detected by means of the usual appliances. If the content of A in the mixture is higher the hetero-

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Detonation of mixtures of ...

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geneities become so great that detonation is extinguished. At a volume ratio NM/A = 80 : 20 and 78 : 22, the detonation is propagated in a charge which is about 5 diameters long, and this process is steady. The systems of the heterogeneities (bands) do not change. When the detonation has covered 3.5 - 4 diameters of the charge it continues to be propagated constantly. From this the authors conclude that the determined type of propagation is characteristic of a detonation of explosives of this kind. At a ratio of NM/A = 75 : 25 the detonation is extinguished near the end of the charge. The authors state finally that the detonation front in liquid explosives is not flat, since the reaction sets in by centers. They thank Ya. K. Troshin and G. A. Adadurov for discussion and A. I. Larin, G. A. Gur'yanov, V. M. Chernyshov, and Y. A. Paramonov for their assistance in the experiments. There are 2 figures and 10 references: 9 Soviet-bloc and 1 non-Soviet-bloc. The latter reads: M. A. Cook et al., Ref.10, J. appl. Phys., 27, No. 3, 269 (1956).

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences USSR)

Card 3/4

DREMIN, A.N. (Moskva); ROZANOV, O.K. (Moskva); TROFIMOV, V.S. (Moskva)

The mechanism underlying detonations of liquid explosives. PMTF no.1:130-132 Ja-F '63. (MIRA 16:2)
(Detonation) (Explosives)

L 18278-63 EPA/EPA(b)/EPF(c)/EPR/EWT(l)/EWT(m)/BDS/ES(s)-2 AEDC/AFFTC/
APGC/ASD/RPL/SSD Paa-4/Pd-4/Pr-4/Ps-4/Pt-4 RM/WW/JW
ACCESSION NR: AP3006131 S/0207/63/000/004/0101/0103

AUTHOR: Buravova, S. N. (Moscow); Dremin, A. N. (Moscow); Rozanov, O. K. (Moscow); Trofimov, V. S. (Moscow) 95 91

TITLE: Study of the smoothness of a detonation wave front

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 4, 1963, 101-103

TOPIC TAGS: detonation, detonation wave front, nitromethane, acetone, liquid explosive, structure, detonation front structure, reflected light

ABSTRACT: A study of the surface structure of a detonation wave front propagating in liquid nitromethane-acetone mixtures proved that the front is not smooth and thus confirmed a previous conclusion that detonation waves in liquids do not propagate at the same rate in all points of the front. The study was made by the following method: The test mixture, which was placed in a vessel with a polished metal plate at the bottom, was detonated by a charge located under the plate. A layer of water above the test mixture served for control purposes.

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ACCESSION NR: AP3006131

4

Argon heated by compression with a detonation-induced, shock wave was used as a light source. The light reflected from the metal plate and from the nitromethane-acetone and water interphase was recorded by a photoregister. Photographs obtained during propagation of the detonation wave disclosed traces caused by reflection from the moving metal plate and the front of the shock wave propagating in the test mixture and in water. Traces caused by reflection from the detonation wave front were not observed. Another experiment conducted by the light scattering technique with a nonpolished metal plate and focusing of the scattered light beam showed a trace resulting from light scattering on the detonation wave front. The results indicate that the absence of a reflected light trace in the first experiment is not caused by light absorption but rather by the fact that the detonation front has a surface roughness which is much larger than the wave length of light. An approximate evaluation of these and previous experiments suggests that the dimension of the detonation front nonuniformity in the direction of the wave propagation is not more than one order of magnitude smaller than the dimension in the plane of the front. "The authors thank V. A. Kolomenkin, G. G. Nemtsov, V. A. Paramonov, and D. I. Gerasimov for their help in conducting the experiments." Orig. art. has: 3 figures.

Card 2/3

DREMIN, A.N.; ROZANOV, O.K.

Measurement of shock-wave adiabats for mixtures of nitromethane with acetone. Izv. AN SSSR. Ser. khim. no.8: 1513-1514 Ag '64. (MIRA 17:9)

1. Institut khimicheskoy fiziki AN SSSR.

L 4985-66 EPA/EPA(s)-2/EWT(m)/EPF(c)/EWP(j)/T/EWA(c) RPL WW/JW/JWD/WE/RM

ACC NR: AP5026071 SOURCE CODE: UR/0405/65/000/002/0093/0100

44,55 44,55

AUTHOR: Dremin, A. N. (Moscow); Rozanov, O. K. (Moscow)

56

B

ORG: none

17,44,55

TITLE: Analogy of detonations of gaseous and liquid explosives ||

SOURCE: Nauchno-tekhnicheskiye problemy goreniya i vzryva, no. 2, 1965, 93-100

TOPIC TAGS: combustion, explosive, detonation, detonation wave, explosion, liquid explosive

ABSTRACT: The propagation of detonation waves in liquid and gaseous explosives is similar in that the detonation speed is almost independent of the charge diameter; the detonation wave is attenuated when passing from a narrow cylindrical tube into a tube or vessel of larger diameter, or when it passes from a cylindrical into a divergent tube section. In the latter case, the attenuation of the wave depends on the cone angle and tube diameter. In the present article, the transition of a detonation wave in an acetylene-oxygen mixture from a 50-mm into a 120-mm-diameter tube and in a nitromethane-acetone mixture from an 88-mm-diameter into a 180-mm diameter vessel was studied by high-speed photography. The distances between the luminous bands, which were taken as the average size of the detonation wave inhomogeneities, were plotted on the basis of previous experiments as functions of initial gas pressure (for a hydrogen-oxygen mixture), the amount of inert additives in a nitromethane-acetone

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ACC NR: AP5026071

mixture, and the diameter of the nitromethane-acetone charge. On the basis of the experimental findings, a unifying theory is proposed which predicts that a spinning detonation in liquid explosives is possible when the mixture is sufficiently diluted so that the size of the inhomogeneity is of the same order of magnitude as the tube diameter. The results indicate that the mechanisms underlying the propagation of detonations in liquids, gases, and in single crystals are identical. Orig. art. has: 4 figures. [PV]

SUB CODE: W1,FP/ SUBM DATE: 02Feb65/ ORIG REF: 021/ OTH REF: 006/ ATD PRESS: 4/13/

8C

Card 2/2

L 14008-66 FSS-2/EWT(l)/EWT(m)/EWP(j)/T/FCS(k) WW/JW/JWD/GG/WE/RM

ACC NR: AP6004437 SOURCE CODE: UR/0414/65/000/003/0093/0098

AUTHOR: Dremin, A. N. (Moscow); Rozanov, O. K. (Moscow); Koba, I. G. (Moscow)

52
B

ORG: none

TITLE: Study of the reaction time in the detonation of liquid explosives by the electromagnetic method 21,44,55

SOURCE: Fizika goreniya i vzryva, no. 3, 1965, 93-98

TOPIC TAGS: liquid explosive, detonation time

ABSTRACT: The reaction time τ in the detonation of liquid explosives 5,4,455 was studied by obtaining mass velocity profiles for charges of nitromethane and of a nitromethane-acetone mixture (75:25) using the previously described electromagnetic method (A. N. Dremin, K. K. Shvedov. PMTF, 1964, 2). To determine the effect of the size of the recording wire, which is located within the explosive charge in the electromagnetic method, the interaction of a detonation wave with a plate of aluminum foil (0.035 mm thick) and with a mica plate (0.04 mm thick) in nitromethane and nitromethane-acetone mixtures was studied using high-speed photography. It is shown that there is a detonation delay of about 0.15 μsec behind both the aluminum and the mica plates. The mass velocity profiles recorded by the electromagnetic method with wires 0.035 and 0.22 mm thick for nitromethane and nitromethane-acetone mixtures also showed a detonation delay of about 0.17 μsec in the case of the 0.035 mm wire, which is in good

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agreement with the value obtained by the photographic measurements. With the 0.22 mm recording wire, the detonation delay was 0.45 μsec. This difference is probably due to the difference in the intensities of the shock waves leaving the wires. The mass velocity in the snock wave behind the thin wire is greater than behind the thick wire. Thus, the recording wire creates a discontinuity dividing the combustion products and the unperturbed explosive. The mass velocity in the unperturbed explosive behind the shock wave may be calculated from the mass velocity of the combustion products and the shock adiabat of the explosive. The calculated value of the mass velocity behind the shock wave (u_1 = 1.86 km/sec) is close to the value obtained from the electromagnetically recorded mass velocity profile (u_1 = 1.82 km/sec). Extrapolated to the initial mass velocity recording point, u_1 = 2.04 km/sec. The mass velocity sharply decreased from the initial maximum point to a certain break point after which the decrease became steady. The mass velocity at the break point was u_2 = 1.51 km/sec. The time from the initial recording point to the sharp break point is the total reaction time τ_* and estimated to be equal to about 0.4 sec for the nitromethane-acetone mixture. The width of the reaction zone may be calculated when τ_* is known: $a = \tau_*(D-\bar{u})$, where D is the detonation velocity and $\bar{u}$ is the average mass velocity. For the nitromethane-acetone mixture (75:25), D = 5.75 km/sec and $\bar{u}$ = 1.77 km/sec; thus a = 1.6 mm. Orig. art. has: 4 figures and 1 formula. [PS]

SUB CODE: 19/ SUBM DATE: 02Feb65/ ORIG REF: 014/ OTH REF: 005/ ATD PRESS: 4196

Card 2/2

ROZANOV, Oleg Nikolayevich, doktor tekhn.nauk; GOFMAN, M.L., kand.tekhn.
nauk, nauchnyy red.; VOROB'YEV, G.S., red.izd-va; GURDZHIYEVA,
A.M., tekhn.red.

[New passenger airplanes] Novye passazhirskie samolety. Leningrad, Ob-vo po rasprostraneniiu polit. i nauchn.znanii RSFSR, Leningr.otd-nie, 1960. 42 p. (MIRA 13:8)
(Airplanes)

PHASE I BOOK EXPLOITATION SOV/4649

Rozanov, Oleg Nikolayevich, Doctor of Technical Sciences

Novyye passazhirskiye samolety (New Passenger Airplanes) Leningrad, 1960. 42 p. 3,500 copies printed.

Sponsoring Agency: Obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy RSFSR, Leningradskoye otdeleniye.

Scientific Ed.: M. L. Gofman, Candidate of Technical Sciences; Ed. of Publishing House: G. S. Vorob'yev; Tech. Ed.: A. M. Gurdzhiyeva.

PURPOSE: This is a popular booklet intended for general readers.

COVERAGE: The booklet describes characteristics and basic designs of Soviet and non-Soviet transport aircraft. Some data are also given for new aircraft not yet in operation. No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

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New Passenger Airplanes SOV/4649

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AVAILABLE: Library of Congress (TL685.4.R6) AC/rn/fal
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SOV/124-58-1-1110

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 1, p 145 (USSR)

AUTHOR: Rozanov, O. N.

TITLE: Contribution to the Selection of a Strong Wing-structure Design (K voprosu o vybore konstruktivno-silovoy skhemy kryla)

PERIODICAL: Tr. Leningr. in-t aviats. priborostr., 1956, Nr 14, pp 13-32

ABSTRACT: The author employs as an evaluation criterion the coefficient of area utilization of the wing profile by strength-producing structural elements. The following types of Duralumin wings are examined: A multiweb wing, a stringer-type wing, a wing with a sandwich skin, and a wing with a solid filler material. Graphs of the area-utilization coefficient as a function of M/b^3 (M - bending moment; b - chord) enable one to evaluate the suitability of a given arrangement with reference to the thickness ratio. For small values of M/b^3 and large thickness ratios the stringer-type structure is most advantageous, while for elevated M/b^3 values and small thickness ratios structurally solid wings should be employed.

Yu. P. Grigor'yev

Card 1/1

Name : ROZANOV, O. N.

Remarks : Engineer G. Molyukov writes in a review of a manual on aircraft construction that O. N. Rozanov, A. S. Bedunkevich, V. Ya. Krylov, Ya. G. Panovko and G. G. Rostovtsev are the authors of a book entitled "Special Features of Jet Aircraft Construction".

Source : P: Vestnik Vozdushnogo Flota, No. 3, March 1954, pp. 80-82

ROZANOV, P.

Simplify the calculation of interest on deposits. Fin. SSSR
18 no.12:73-74 D '57. (MIRA 11:1)

1.Zamestitel' nachal'nika Upravleniya sberkass g. Moskvy.
(Interest and usury)

ROZANOV, P.

25699. **ROZANOV, P.,** *and* **V. SPASSKIĬ.** Klimat. (*In:* Ėn͡tsiklopedicheskiĭ slovar' voennoĭ medi͡tsiny, ed. E. I. Smirnov. Moskva, 1947. t. 2, col. 1299–1311, tables) ***Title tr.:*** Climate (*In:* Encyclopedic dictionary of war medicine).

Contains a definition of the term in military medicine (as the sum total of geographic and meteorologic factors apt to influence the health of the armed forces), and sections on: the importance of climate and microclimate for the armed forces and their condition, especially in wintertime; kinds of climate, including: polar climate (col. 1301–2), its area, peculiarities and effect on man; mountain climate (col. 1305), and the arctic-coast climate (col. 1307). Bibliography (about 20 items). ***Copy seen:*** DLC.

ROZANOV, P.; ZAMESHAYEV, I.

Reduce expenditures of savings banks. Fin. SSSR 16 no.3:44-48 Mr'55. (MLRA 8:2)

1. Zamestitel' nachal'nika Upravleniya gostrusberkass i goskredita RSFSR (for Rozanov). 2. Zamestitel' nachal'nika Upravleniya sberegatel'nykh kass Omskoy oblasti (for Zameshayev).
(Savings banks)

KANE,A.M.; KULESHA,K.K.; MAKSIMOV,I.O.; ROZANOV,P.A.; KHUDOBIN,V.M., redaktor; KANDYKIN,A.Ye., tekhnicheskiy redaktor

[Assembly-line method of repairing freight cars; work practice of the Leningrad shunting Moscow Station of the October line] Potochnyi metod remonta gruzovykh vagonov; opyt raboty vagonnogo depo stantsii Leningrad-sortirovochnyi Moskovskii Oktiabr'skoi dorogi. Moskva, Gos. transp. zhel-dor.izd-vo, 1955. 66 p. (MLRA 9:2)

(Railroads--Cars--Maintenance and reapir)

ROZANOV, S., inzh.

Energy of a corona discharge ("Electric disk separator" by A.I.But). Izobr.i rats. no.7:52-53 Jl '60.
(MIRA 13:8)
(Corona(Electricity)) (But, A.I.)

PROKHOROV, S., podpolkovnik; ROZANOV, S., mayor

Firing with night sights. Voen. vest. 41 no.9:105-109 S '61.
(MIRA 15:1)

(Shooting, Military)

ROZANOV, S.

Voluntary organization for the introduction of a wide use of chemicals. NTO 6 no.6:8 Je '64. (MIRA 17:8)

1. Spetsial'nyy korrespondent zhurnala "Nauchno-tekhnicheskiye obshchestva SSSR".

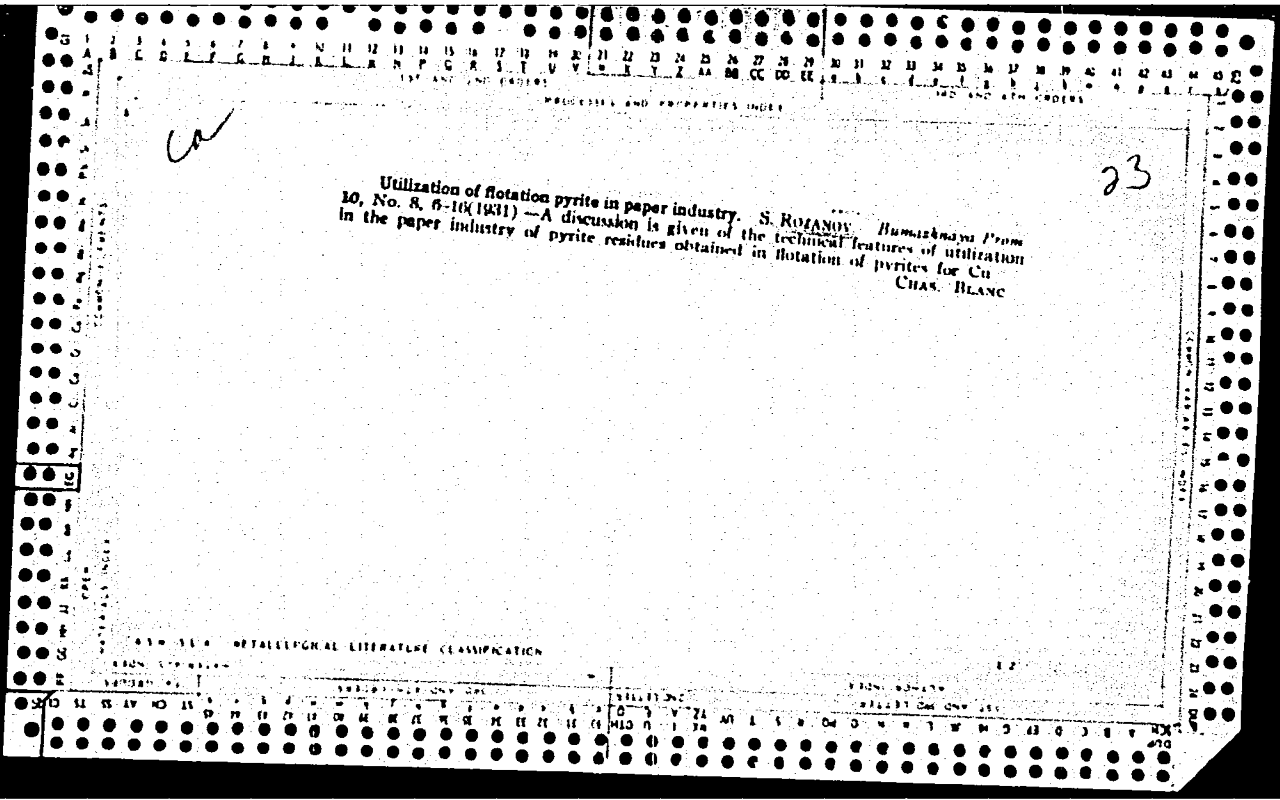
BOLDYREV, V.; ROZANOV, S.

Across the Irtysh Valley. Znan.-sila 38 no.3:40-41 Mr '63.
(MIRA 16:10)

ROZANOV, S.

Problemy sovremenoi aviatsii. [The problems of present day aviation]. (Grazhdanskaia aviastsiia, 1938, no. 5, p. 31-35). DLC: TL504.G7

SO: Soviet Transportation and Communication, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.



Cu

23

Utilization of flotation pyrite in paper industry. S. ROZANOV. *Bumazhnaya Prom* 10, No. 8, 6-10(1931).—A discussion is given of the technical features of utilization in the paper industry of pyrite residues obtained in flotation of pyrites for Cu

CHAS. BLANC

METALLURGICAL LITERATURE CLASSIFICATION

SHILOV, I.A.; ROZANOV, S.I.; AMETEVSKAYA, Ye.I.

Some mechanisms determining chemical body temperature regulation in the development of small passerine birds. Zhur.ob.biol. 21 no.1:74-76 Ja-F '60. (MIRA 13:5)

1. Chair of Vertebrate Zoology, Moscow State University.
(BODY TEMPERATURE) (PASSERIFORMES)

BOLDYREV, Viktor Nikolayevich; ROZANOV, Sergey Konstantinovich;
MYAKUSHKOV, V.A., red.; KIR'YANOVA, Z.V., mlad. red.;
VAS'KINA, R.S., tekhn. red.

[Sixty days along the fiftieth parallel] 60 dnei po piatidesiatoi paralleli. Moskva, Geografgiz, 1963. 261 p.
(MIRA 17:3)

ROZANOV, S. L.

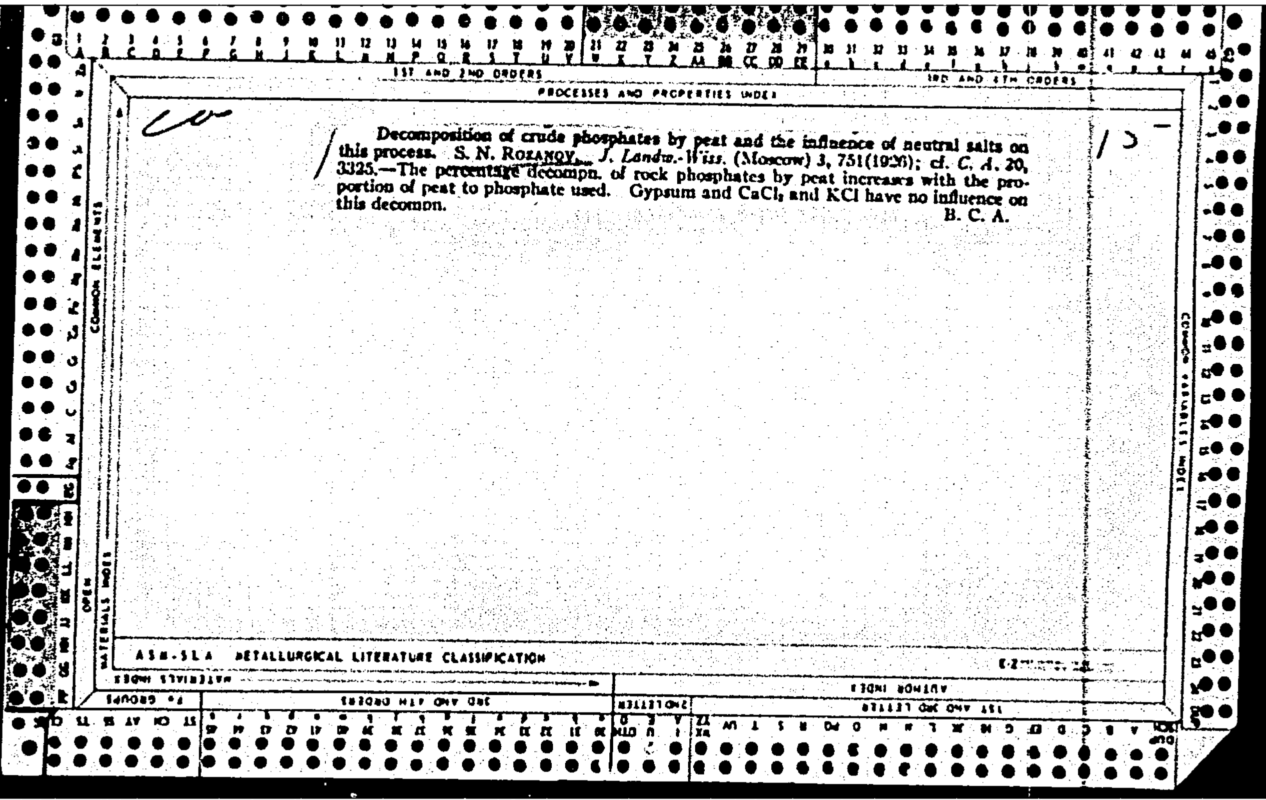
Medicine - Study and Teaching; Public Health

Training of feldshers for public health services., Fel'd i akush., no. 1, 1952

SO: Monthly List of Russian Accessions, Library of Congress, March 1952 [illegible], Uncl.

ROZANOV, S., kapitan; ZABELIN, I., polkovnik.

Ski mounts for machine guns and mortars. Voen.vest. 33 no.16: 64-67 N '53. (MIRA 10:10)
(Winter warfare)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CO

Decomposition of crude phosphates by peat and the influence of neutral salts on this process. S. N. Rozanov. *J. Landw.-Wiss.* (Moscow) 3, 751(1926); cf. *C. A.* 20, 3325.—The percentage decompn. of rock phosphates by peat increases with the proportion of peat to phosphate used. Gypsum and $CaCl_2$ and KCl have no influence on this decompn.

B. C. A.

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CA

The mineralogic characteristic of the phosphates of Russian phosphate deposits in connection with their agronomic utilization. M. P. Fiveg and S. N. Rozanov. *Udobrenie i Urozhai* (Fertilizers and Yields) 1929, 201-11.—The deposits of Russian phosphates which contain no apatite as a nucleus consist of kurskite (apparently from the name of the government Kursk, where some phosphate deposits are located), which is optically inactive, and staffelite, which is optically active and well crystd. On the basis of microscopic and chem. analyses these were divided into 3 petrographic types: (1) glauconitic clay, (2) sandy and (3) glauconitic. The glauconite clay type belongs to the kurskite. The chief mass of the sandy phosphates which is not active in polarized light also belongs to kurskite. Some crystalline staffelite is found along with the kurskite in the sandy phosphates. Vegetation expts. have shown that the amorphous kurskite is just as good as sol. phosphate in both sand and soil cultures, while the staffelite gives negative results. To det. the soly. of the 2 varieties of phosphate, 3 kinds of extractors were used: (1) 2% citric acid, (2) citrate buffer mixt. and (3) tartrate buffer mixt. The p_H of the buffer mixts. was 4.0. Five-g. samples of the phosphates were treated with 500 cc. of the solns. and shaken for 2 hrs. in a rotary shaking machine, then filtered and P was detd. by the Lorenz method. The kurskite phosphates are more sol., although the differences between kurskite and staffelite were not as clear-cut as in the vegetation expts.

J. S. Joffe

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Thermophosphates from Khibinsk apatite-nepheline rocks. S. N. Rozanov. *Udobrenie i Urozhai* (*Fertilizers and Crops*) 2, 105–9(1930).—Two samples of the phosphates, one contg. 11.55% of P_2O_5, the other contg. 31.52% P_2O_5, were treated by various thermal fusion methods. By the Wiborg method (fusion with Na_2CO_3) at a temp. of 1000° for 1 hr. the first sample of phosphate (low in P_2O_5) became citrate sol. (100%) when treated with 25% Na_2CO_3, while the second sample required 50% Na_2CO_3 to obtain similar results. Fusions by the Volter method at 1000° with various proportions of Na_2CO_3, $CaCO_3$, SiO_2, and coal did not give as good results as the Wiborg method. Sample one gave higher yields of citrate-sol. P. There was very little increase in sol. P when the temp. was increased from 1000° to 1250°. Fusions were also made with carnalite (20 min. at 700°) according to the Easthard method and the highest yield obtained was 71% with the low-grade phosphate. For the Rhenania process 100 parts of the phosphate was mixed with 25 parts $CaCO_3$ + 25 parts of Na_2SiO_3 or 10 parts $CaCO_3$ + 50 parts Na_2SiO_3 and heated at 1200°. The results were favorable only with the higher amts. of Na_2SiO_3. Mixts. of the rock with nepheline and KCl at 1000° gave no results. Of all the processes tested the Na_2CO_3 fusion proved to be the best.

I. S. Joffe

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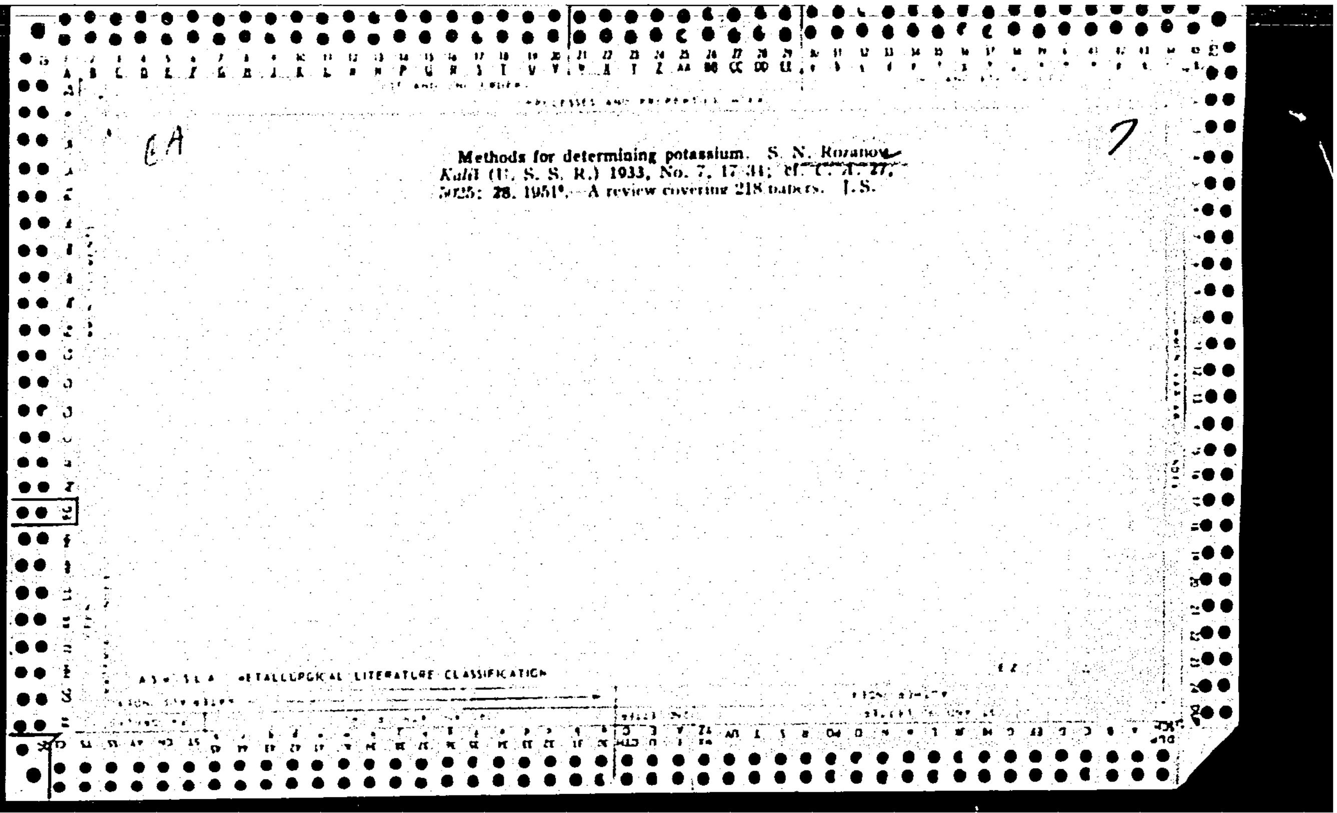

CA

7

Methods for determining potassium. S. N. Rozanov. *Kalii* (U. S. S. R.) 1933, No. 7, 17-31; cf. C. A. 27, 5025; 28, 1951°.—A review covering 218 papers. J. S.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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CP

15'

Experiments on the methods of analyzing fluorine in Khibin apatite and superphosphate. S. N. Rozanov and V. A. Kazarinova. *Trans. Sci. Inst. Fertilizers* (Moscow), No. 113, 96-103(1933).—For the detn. of F in apatite and superphosphate in the presence of Cl and colloidal SiO_2 the Penfield method is suitable providing a trap with 10% Ag_2SO_4 in H_2SO_4 soln. is introduced in the absorption train. For samples contg. also org. matter two traps are introduced: one with Ag_2SO_4, the other with a satd. soln. of Cr_2O_3 or $K_2Cr_2O_7$ in H_2SO_4. In the presence of colloidal SiO_2 the yield of F, according to the Penfield method, is low. For detg. F in superphosphate the sample should be dried in a desiccator over $CaCl_2$ or H_2SO_4; it may also be dried in the oven, but the temp. should not exceed 60°.

J. S. Joffe

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PROCESSES AND PROPERTIES INDEX

Relation between phosphorus pentoxide and insoluble residues in phosphorites by decomposition with acids. S. N. Rozanov and B. N. Isakov. *Zavodskaya Lab.* 3, 29-37 ([illegible]934); cf. *C. A.* 28, 4520^4; Fiveg and Rozanov, *C. A.* 24, 1[illegible]35.—By plotting curves of the solubilities of 30 phosphorites in aqua regia, a regularity in the relation between the content of P_2O_5 and the residue insol. in aqua regia was shown in 1 group of phosphorites and none, or very negligible, in another. Chas. Blanc

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Relation between phosphorus pentoxide and the insoluble residue in Khibinsk apatite-nephelite rock by decomposition with aqua regia. S. N. Rozanov and E. N. Isakov. *Zavodskaya Lab.* 3, 310-14(1934); cf. *C. A.* 29, 24¹.—An approx. relation between the contents of P_2O_5 and the residue insol. in aqua regia was shown in Khibinsk apatite-nephelite rock. This relation is more pronounced in the rock rich in apatite with 15% of insol. residue.
Chas. Blanc

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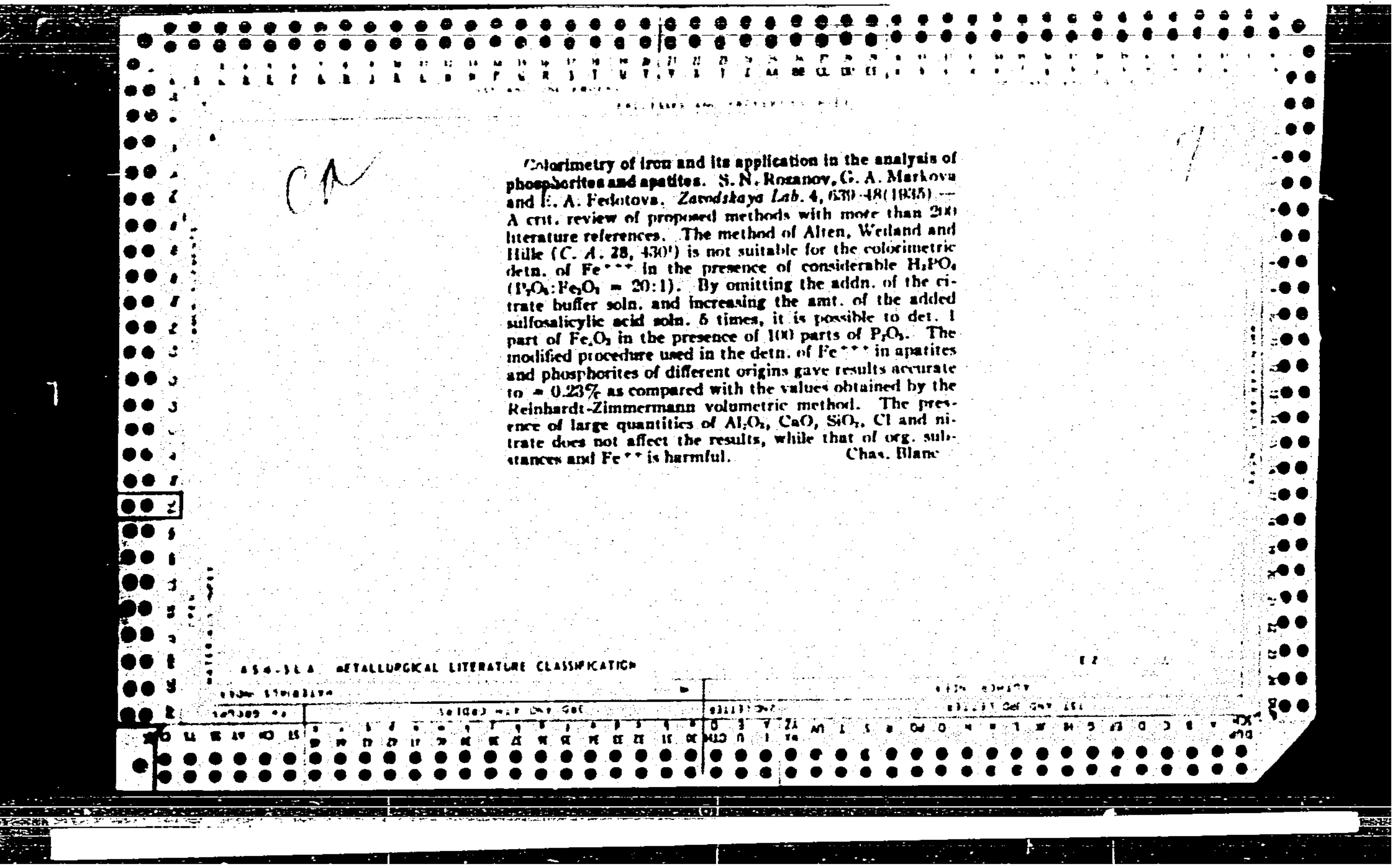
Simplified Penfield method of determining fluorine in phosphorites and apatites. S. N. Rozanov. *Zavodskaya Lab.* 3, 701-5(1934); cf. R. and Kazarnova, C. A. 28, 2100⁸.—The changes in the absorption train (illustrated) consist in substitution of a common flat-bottom reaction flask heated over a thick asbestos mat with a direct flame (instead of a paraffin bath) at 160-70°, elimination of the KOH wash bottle and the $CaCl_2$ U-tube, and passing of air through the system by means of an aspirator bottle. The decompn. of a sample and the distn. of SiF_4 is completed in 2.5 instead of 5 hrs. The accuracy is better than 0.1%. Chas. Blanc

A S M - S L A METALLURGICAL LITERATURE CLASSIFICATION



CA

Colorimetry of iron and its application in the analysis of phosphorites and apatites. S. N. Rozanov, G. A. Markova and E. A. Fedotova. *Zavodskaya Lab.* 4, 639-48(1935).— A crit. review of proposed methods with more than 200 literature references. The method of Alten, Weiland and Hille (*C. A.* 28, 430^1) is not suitable for the colorimetric detn. of Fe^{+++} in the presence of considerable H_3PO_4 ($P_2O_5:Fe_2O_3 = 20:1$). By omitting the addn. of the citrate buffer soln. and increasing the amt. of the added sulfosalicylic acid soln. 5 times, it is possible to det. 1 part of Fe_2O_3 in the presence of 100 parts of P_2O_5. The modified procedure used in the detn. of Fe^{+++} in apatites and phosphorites of different origins gave results accurate to ± 0.23% as compared with the values obtained by the Reinhardt-Zimmermann volumetric method. The presence of large quantities of Al_2O_3, CaO, SiO_2, Cl and nitrate does not affect the results, while that of org. substances and Fe^{++} is harmful. Chas. Blanc

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*On the Colorimetric Determination of Aluminium with Sodium Alizarinsulphonate.** S. N. Rozanov and G. A. Markova (*Zavodskaia Laboratoria* (*Works' Lab.*), 1935, 4, (9), 1023-1031).—[In Russian.] Atack's method has been critically examined. The intensity of the colour produced by alizarin in Al solutions depends not only on the Al content but also on the p_H of the solution when the alizarin is added, on the rate at which $CH_3 \cdot CO_2H$ is added, and on the quantity of alizarin present. Since the intensity of the colour is proportional to the Al content only within a very narrow concentration range, the concentration of the standard solution must not differ from that of the test solution by more than 10%. Fe must be absent; addition of citric acid does not prevent its interference. It is concluded that Atack's method is not reliable.—D. N. S.

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ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

ROZANOV, S. N.

Rozanov, S. N. "Conservative and operative treatment of croup in connection with its pathogenesis and classification," Trudy VI Vsesoyuz. s'ezda det. vrachey, posvyashch. pamyati prof. Filatova, Moscow, 1948, p. 301-04

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Stately, No. 3, 1949)

[illegible]

"A Working Classification for the Clinical Forms of Diphtheria," Pediatrics, No. 2, 1948.

Prof., Moscow, -c1948-.